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EXAMINER
GENACK, MATTHEW W

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _16 June 2008_.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-20_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-20_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by
another filed in the United States before the invention by the applicant for patent or (2) a patent
granted on an application for patent by another filed in the United States before the invention by the
applicant for patent, except that an international application filed under the treaty defined in section
351(a) shall have the effects for purposes of this subsection of an application filed in the United States
only if the international application designated the United States and was published under Article 21(2)
of such treaty in the English language.

2.   Claims 1, 5-8, 13-15, and 18-19 are rejected under 35 U.S.C. 102(e) as being

anticipated by Alpdemir, U.S. Patent Application Publication 2002/0035474.

        Regarding Claims 1, 8, and 15, Alpdemir discloses a method, system, and

business model for an information system and service having business self-

promotion features whereby consumers call an information center associated with a

business using a regular telephone (Abstract, [0002] Lines 1-7, [0018], Fig. 1). A live

agent may handle some calls ([0059], [0110] Lines 1-7). A caller may submit a query

pertaining to the activities of the business ([0002], [0018], [0085], [0094], [0141]

Lines 1-5). The user's question can then be translated into Voice Extensible Markup

Language (VXML) with a speech-to-text (STT) conversion engine ([0138] Lines 1-17,

Fig. 1). Artificial intelligence is used in the processing and answering of the query

([0141] Lines 7-9). A text-to-speech (TTS) engine and speech server are used to

provide the answer to the caller (Abstract, [0139] Lines 1-5, [0143] Lines 1-11, Fig.

1).

Regarding Claim 5, it is inherent that an artificial intelligence engine used for answering caller's queries would utilize the expertise and inputs associated with a live agent.

Regarding Claims 6 and 13, Alpdemir discloses that a personal computer (PC), personal digital assistant (PDA), or other appliance capable of displaying HTML pages may submit a query to the information center (Abstract, [0139] Lines 8-19, Fig. 1).

Regarding Claim 7, the queries are limited to pertaining to the activities of the business, as outlined above.

Regarding Claim 14, Alpdemir discloses that a user may inquire about a category, a category and a location, or any item or combination of items ([0108]).

Regarding Claim 18, a live agent may handle some calls, as outlined above.

Regarding Claim 19, Alpdemir discloses that a query may be submitted via email ([0054]).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 2, 9, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Alpdemir in view of Gavan *et al.*, U.S. Patent No. 6,601,048, further in view of

Dezonmo, U.S. Patent No. 6,233,333.

        Alpdemir does not expressly disclose the use of a caller call record by

the artificial intelligence engine in the processing of a call.

        Gavan *et al.* discloses a system and method for processing event

records for the purposes of detecting and managing fraud (Abstract, Column

2 Lines 18-28). Specifically, in the context of telecommunications fraud

detection, artificial intelligence is used to monitor event records that are

stored in a call history database, said records containing information

pertaining to the identity of the caller and the called parties (Column 3 Lines

38-64, Column 11 Lines 4-65, Figs. 2 and 4).

        At the time that the invention was made, it would have been obvious to one

of ordinary skill in the art to modify the invention of Alpdemir by providing for use

of call records, said call records containing information pertaining to identity and

contact history, by an artificial intelligence engine in the processing of a call.

        One of ordinary skill in the art would have been motivated to make this

modification so as to provide a less rigid system of pattern analysis in the

processing of a telecommunications traffic (Gavan *et al.*: Column 2 Lines 6-15).

        Neither Alpdemir nor Gavan *et al.* expressly discloses the simultaneous

delivery of a caller call record and said caller's call to a network device.

Dezonmo discloses an apparatus and method for identifying a call record that
is to be delivered from one automatic call distributor to another automatic call
distributor (Abstract, Column 2 Line 60 to Column 3 Line 13, Figs. 1-2). Customer
records for a caller, and said caller's call, are delivered to a selected agent
simultaneously (Column 7 Lines 30-44).

At the time that the invention was made, it would have been obvious to one of
ordinary skill in the art to modify the invention of Alpdemir as modified by Gavan *et al.*
by providing for the simultaneous delivery of a caller's call and call records to the
artificial intelligence engine.

One of ordinary skill in the art would have been motivated to make this
modification in order to expedite the handling of the call (Dezonmo: Column 7 Line 55
to Column 8 Line 3).

5.   Claims 3-4, 10-11, 17, and 20 are rejected under 35 U.S.C. 103(a) as being
unpatentable over Alpdemir in view of Saylor *et al.*, U.S. Patent No. 6,792,086.

Regarding Claims 3, 10, and 17, Alpdemir does not expressly disclose
the conversion of an answer into an extensible markup language.

Saylor *et al.* discloses a system and method whereby voice codes store
content, said content being accessible by telephone (Abstract, Column 1 Lines 62-
66, Column 5 Lines 12-14). A user calls a call processing center, and said call center
processes an information request from said user via a voice browser module that
uses speech recognition to interpret the user's request for information. This
information may be disseminated by an organization whose purpose is commerce-

related (Column 3 Lines 36-41, Column 5 Lines 41-42 and 55). The user may ask a

business-related question (Column 17 Lines 13-16). The VXML information may be

passed through a TTS in order to create a sound file that is subsequently played for

the user (Column 8 Lines 16-34); alternatively, the VXML information may delivered

to the user as a text file (Column 8 Lines 34-38).

   At the time that the invention was made, it would have been obvious to one

of ordinary skill in the art to modify the invention of Alpdemir by providing for the

conversion, by the AI engine, of the provided answer into an extensible markup

language.

   One of ordinary skill in the art would have been motivated to make this

modification because the customer may be using a device that is more suited to

receiving an answer in extensible markup language form than in the form of

synthesized speech.

   Regarding Claim 11, Alpdemir discloses that the requested information may

be passed through a text-to-speech engine and speech server and played on the

user's telephone (Abstract, [0139] Lines 1-5, [0143] Lines 1-11, Fig. 1).

   Regarding Claim 20, Alpdemir discloses a method, system, and business

model for an information system and service having business self-promotion

features whereby consumers call an information center associated with a business

using a regular telephone (Abstract, [0002] Lines 1-7, [0018], Fig. 1). A live agent

may handle some calls ([0059], [0110] Lines 1-7). A caller may submit a query

pertaining to the activities of the business ([0002], [0018], [0085], [0094], [0141]

Lines 1-5). The user's question can then be translated into Voice Extensible

Markup Language (VXML) with a speech-to-text (STT) conversion engine ([0138]

Lines 1-17, Fig. 1). Artificial intelligence is used in the processing and answering of

the query ([0141] Lines 7-9). A text-to-speech (TTS) engine and speech server are

used to provide the answer to the caller (Abstract, [0139] Lines 1-5, [0143] Lines 1-

11, Fig. 1). The requested information may be passed through a text-to-speech

engine and speech server and played on the user's telephone (Abstract, [0139]

Lines 1-5, [0143] Lines 1-11, Fig. 1).

Alpdemir does not expressly disclose the conversion of an answer into

an extensible markup language.

Saylor *et al.* discloses a system and method whereby voice codes store

content, said content being accessible by telephone (Abstract, Column 1 Lines 62-

66, Column 5 Lines 12-14). A user calls a call processing center, and said call

center processes an information request from said user via a voice browser

module that uses speech recognition to interpret the user's request for information.

This information may be disseminated by an organization whose purpose is

commerce-related (Column 3 Lines 36-41, Column 5 Lines 41-42 and 55). The

user may ask a business-related question (Column 17 Lines 13-16). An interpreter

may be used to provide requested Voice XML information to the user (Column 8

Lines 16-20).

At the time that the invention was made, it would have been obvious to one

of ordinary skill in the art to modify the invention of Alpdemir by providing for the

conversion, by the AI engine, of the provided answer into an extensible markup
language.

One of ordinary skill in the art would have been motivated to make this
modification because the customer may be using a device that is more suited to
receiving an answer in extensible markup language form than in the form of
synthesized speech.

6.   Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alpdemir
in view of Saylor *et al.*, further in view of Horowitz *et al.*, U.S. Patent No. 6,349,290.

Alpdemir discloses that the requested information may be passed through a
text-to-speech engine and speech server and played on the user's telephone
(Abstract, [0139] Lines 1-5, [0143] Lines 1-11, Fig. 1).

Neither Alpdemir nor Saylor *et al.* expressly discloses the use of a caller's
identity and contact history by an artificial intelligence engine to support enterprise
activities.

Horowitz *et al.* discloses a system and method for the automated, customized
presentation of a financial institution's services and products to a customer
accessing said financial institution's intelligent voice response (IVR) system via
telephone, whereby the system makes use of artificial intelligence (Abstract, Column
5 Lines 21-38, Column 11 Lines 14-27, Column 23 Line 58 to Column 24 Line 9,
Column 29 Lines 1-8, Fig. 6). A call is processed according to the caller's identity
and contact history (Column 42 Line 53 to Column 43 Line 6, Fig. 35).

At the time that the invention was made, it would have been obvious to one of

ordinary skill in the art to modify the invention of Alpdemir as modified by Saylor *et al.* by providing the means for the artificial intelligence engine to make use of a caller's identity and contact history to support enterprise activities.

One of ordinary skill in the art would have been motivated to make this modification in order to offer products and services to a customer that match the business's perception of said customer's need (Horowitz *et al.*: Column 1 Lines 36-62).

7.   Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alpdemir in view of Saylor *et al.*, further in view of Bigus *et al.*, U.S. Patent Application Publication 2003/0084010.

It is inherent that an artificial intelligence engine used for answering caller's queries would utilize the expertise and inputs associated with a live agent.

Neither Alpdemir nor Saylor *et al.* expressly discloses the use of forward and backward chaining by an artificial intelligence engine.

Bigus *et al.* discloses the use of forward and backward chaining by an artificial intelligence engine in the context of a method wherein product support services are provided to customers (Abstract, [0011]-[0012], [0086]).

At the time that the invention was made, it would have been obvious to one of ordinary skill in the art to modify the invention of Alpdemir as modified by Saylor *et al.* by providing for the use of forward and backward chaining by an artificial intelligence engine.

One of ordinary skill in the art would have been motivated to make this modification in order to facilitate the identification, by the artificial intelligence engine, of recurring patterns that indicate an undesirable operational condition in the process of aiding a customer (Bigus *et al.*: [0087]).

Response to Arguments

8.   Applicant's arguments filed 16 June 2008 have been fully considered but they are not persuasive.

Regarding Claims 1, 5-8, 12-15, and 18-19, Applicant asserts, on Page 7 of Remarks, that "There is no mention of an artificial intelligence use in this sentence of anywhere else in this paragraph [0141]." On the contrary, the last sentence of the paragraph makes reference to artificial intelligence use. Applicant further asserts that "This statement that AI is known is not a statement that it is used or a description of how it may be used." Applicant has failed to explain why such a sentence appears in a patent document if said sentence has no connection to the invention being disclosed in said patent document. Applicant asserts that "it is not a question of taking this statement outside the context of the earlier sentence, but of reading what is actually disclosed." Applicant ignores the fact that the meaning of a particular sentence is dependent on its context. Applicant states that "the context of the entire paragraph ... does not describe or suggest anything related to the claimed forming of answers to the queries" Applicant ignores the fact that the invention of Alpdemir (*e.g.*, the context in question) is concerned with the answering of customer queries; as an example, paragraphs 0088 through 0091 describe the automated retrieval of directory information

after a caller submits a query. Since the aforementioned example is not operator
assisted directory assistance, it is clear that Alpdemir's reference to artificial intelligence
applies to this example.

Applicant asserts, on Page 8 of Remarks, that "independent claims 1, 15, and 20
also call for an artificial intelligence engine with a knowledge universe comprising
enterprise activities of the organization. This is not disclosed by Alpdemir." As stated
above: "A caller may submit a query pertaining to the activities of the business
([0002], [0018], [0085], [0094], [0141] Lines 1-5)." Since it has been established that
artificial intelligence is used to answer said query, it is clear that the artificial
intelligence engine comprises enterprise activities of the organization.

Applicant asserts, on Page 9 of Remarks, that "Dezonno [sic] delivers the call to
the agent 18C and the records to a terminal display 22C. Thus, they are delivered to
two different destinations, not to a single engine or location". Dezonmo is relied on only
for the teaching of the simultaneous delivery of a call and call records. Gavan *et al.* is
relied on for the teaching of the delivery of multiple items to an artificial intelligence
engine.

Applicant asserts, on Page 9 of Remarks, that "Alpdemir does not disclose an AI
engine forming a context for answering queries." On the contrary, Alpdemir states, in
Paragraph 0091: "When a caller makes an inquiry, the phone number is retrieved
based on the business (or organization) name and location, and the caller is then asked
whether to connect to that phone number. The location can be any designation, for
example any or all of an address, a city, a zip code, or major cross streets or other

recognizable location. If a location is not specified, then various rules or policies may be used to select, for example, in one embodiment, three possibilities are deliver by city or street names. In the event that there is more than one of the business in the area searched, for example there may be three Radio Shack locations in the search area, then the caller may be presented with three alternatives and locations selected according to any scheme, and asked for a decision with which to connect. In either case, the selection may be made either by the number or by the location" The caller facilitates the formation of a context for the answer (*e.g.*, eliminating ambiguity) to the query by choosing the appropriate alternative(s).

Applicant asserts, on Page 9-10 of Remarks, that "Claim 17 has been amended to call for incorporating VXML response into documents delivered to the caller in response to the call ... This feature is also not taught by the cited references." On the contrary, Examiner directs Applicant's attention to the following excerpt from the rejection of Claim 17: " A user calls a call processing center, and said call center processes an information request from said user via a voice browser module that uses speech recognition to interpret the user's request for information. This information may be disseminated by an organization whose purpose is commerce-related (Column 3 Lines 36-41, Column 5 Lines 41-42 and 55). The user may ask a business-related question (Column 17 Lines 13-16). The VXML information may be passed through a TTS in order to create a sound file that is subsequently played for the user (Column 8 Lines 16-34); alternatively, the VXML information may delivered to the user as a text file (Column 8 Lines 34-38)."

Conclusion

9.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew W. Genack whose telephone number is 571-272-7541. The examiner can normally be reached on Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew W Genack/

Examiner, Art Unit 2617

/Duc Nguyen/

Supervisory Patent Examiner, Art Unit 2617